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CLASSE DE MÉDECINE

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1) M. J. Janiga. The syndrome appearing after resection of the stomach for gastric or duodenal ulcer.

2) M. F. Tkaczyk. Statistics and results of treatment in 1512 cases of gastric and duodenal ulcer in the «Lwigród» Sanatorium in Krynica.

SÉANCE DU 22 JANVIER 1951

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1) M. J. Miodoński. A simple method of distinguishing Otosclerosis from Perceptive deafness. L'épreuve otologique interne-moyenne.

2) M. W. Szumowski. Wacław Mayzel and the Discovery of Karyokinesis.

SÉANCE DU 31 MAI 1951

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SÉANCE DU 24 SEPTEMBRE 1951

Communications:

1) MM. J. Supniewski, J. Krupińska i W. Dymek. Les propriétes des dérivés de la chloromycetine. I. L'Action bactériostatique de la bromomycetine.

2) MM. J. Supniewski, W. Dymek et J. Krupińska. Les propriétés des détivés de la chloromycetine. II. L'Action bacteriostatique du Treo-para-bromphenyl-3-dichloracetamide-1-3-propandiole.

RÉDACTION: 17, RUE SŁAWKOWSKA
ACADÉMIE POLONAISE DES SCIENCES ET DES LETTRES
PROF. DR T. TEMPKA

CLASSE DE MÉDECINE

SÉANCE DU 18 NOVEMBRE 1950
EXTRAIT DU PROCÈS-VERBAL.

Présidence de M. MICHAŁOWICZ.

The syndrome appearing after resection of the stomach for gastric or duodenal ulcer.

Communication de M. J. JANIGA.

Among 150 patients after resection of the stomach, in 25 (16·6 per cent), a «post-resection syndrome» was ascertained, taking the form of considerable loss of strength, pallor, acceleration of the pulse, palpitations, sweating, nausea, supra-abdominal oppression and anxiety, lasting from 15 to 30 minutes, and appearing daily or with intervals, usually once in the course of the day, after eating or immediately after taking a meal. These symptoms, which have been described for several years, are attributed by some authors to the sudden filling of the jejunum and its distention by the chyme, and by others to the state of hypoglycaemia appearing during tho attack.

Among 150 patients in the Lwigród Sanatorium, slight symptoms of hypoglycaemia were very often met with. Out of 25 patients with post-resection symptoms 7 showed symptoms of hypoglycaemia, 3 to a high degree. All seven were characterized by marked progressive emaciation (loss of weight from 7 to 14 kg, i. e. c 14 to 34 lbs.), sometimes lasting for years and difficult to overcome. X-ray examination also showed a very rapid transit of the contents from the remainder of the stomach to the bowel, and this is probably the chief reason for the attack during a strong coronarian-intestinal reaction in neuropathic subjects.

The patients themselves usually state that sweet things and milk provoke an attack easily, while an increase in the amount of

fat in the diet acts beneficially. In the sanatorium therefore a diet was given consisting of 165 (and more) g of fat, 120 g of protein, and 300 g of carbohydrates, also limiting the amount of liquids and administering them in very small doses. Giving teaspoonfuls of olive oil, fish-liver oil, or even paraffin before meals lessens the force of the attack and sometimes even prevents it the Lwigród Sanatorium, Krynica, Poland.

(The Lwigród Sanatorium, Krynica, Poland. Superindent, Dr T. Huczyński. Scientific Director: Professor T. Tempka, M. D.).

Statistics and results of treatment in 1512 cases of gastric and duodenal ulcer in the «Lwigród» Sanatorium in Krynica.

Communication de M. F. Tkaczyk.

Out of 1512 cases of ulcer treated during two yeras, there were 324 gastric and 1188 duodenal ulcers. The latter predominated (92 per cent) in chronic cases.

Disturbances in the vegetative system of a vagotonic or more rarely a sympathetic type were observed in the majority of the patients. Over-stimulation of the whole nervous system, neurasthenic, hypochondriac states and anxiety neuroses were frequently met with.

The paper presents evidence of the wide social field spanned by ulcerous diseases.

(The Lwigród Sanatorium, Krynica, Poland. Superindent, Dr J. Huczyński. Scientific Director: Professor T. Tempka, M. D.).

SÉANCE DU 22 JANVIER 1951
EXTRAIT DU PROCÈS-VERBAL.

Présidence de M. J. Olbrycht.

A simple method of distinguishing otosclerosis from perceptive deafnes *L'épreuve otologique interne-moyenne.*

Communication de M. J. Miodoński.

If we insulate as throughly as possible both external meatus and the whole of the aural region by means of a thick cap of puttys then the acoustic waves striking the skull, especially the uncovered areas, undergo a transformation into bone-waves, and as such reach the cochlea. The paranasal sinus route is then the most effective (J. Miodoński, *Monatschrift fur Ohren*, 1938, J. 72, H. 10). The, audiogram obtained under these conditions is very similar to the average «air-conduction curve» of an otosclerotic patient with complete immobilization of the stapes. The otosclerotic, because of the complete immobilization of the stapes, is deprived of true air-conduction, and his so-called «air-conduction» curve is really the curve of the transformation of the air-into bone-conduction. The practical result of this is that a thorough obstruction of the external meatus of both ears should not have a very marked effect on the hearing-power of the otosclerotic. In reality, in cases in which the otosclerotic patient possesses the ability to hear conversational speech at 1 metre or less, firm obstruction of the external meatus by means of two fingers does not much hinder the understanding of conversation, though the distance from which the conversational speech can be understood is lessened. In cases of deterioration of the hearing power to the same degree (conversation at 1 metre or less), but due to neuritis, the firm closing of both external meatus entirely prevents the understanding of conversational speech or even of the increasingly raised voice. This behaviour is comprehensible, as in the latter case the stoppage of the external meatus disturbs the fully effective arrangement of the middle ear, c. 28 db. in the region significant for the understanding of speech.

(De la Clinique Oto-Rhino-Laryngologique de l'Academie de Médecine de Cracovie. Directeur: Professeur J. Miodoński).

Wacław Mayzel and the Discovery of Karyokinesis.

Communication de M. W. Szumowski.

T. Kurkiewicz, in his paper *The Last Half-Century in the Development of Histology in Poland* (Ostatnie pięćdziesięciolecie rozwoju histologii w Polsce, Kosmos, 1931, jubilee volume 119—120), states that Waldeyer, in his report on the progress in histology for 1875, to be found in the Virchow-Hirsch Jahresbericht, gave priority as regards observations on the nuclear fission of cells to Mayzel and van Beneden. This information is mistaken, since Waldeyer did not write this. Woźniewski, in The Polish Medical Weekly (Polski Tygodnik Lekarski, 1949, nos. 5—6) repeated the so-called statement of Waldeyer from Kurkiewicz. After carefully collating the texts, the present writer shows the course of the discovery. In 1875, and indeed rather earlier, several authors in Europe were simultaneously carrying out observations on nuclear fission, among whom the most important were Bütschli, Strasburger and Mayzel. Mayzel himself said (Medycyna, 187, III, and Centralbl. f. die Med. Wissenschaften, 1875): «Engaged for several years in research on the regeneration of the epithelia, I many times came across numerous thick granules and mitotic forms in some of the nuclei in newly formed cells, but in spite of strenuous efforts I did not come to any definite conclusion as to their significance. Only after becoming acquainted with the work of Strasburger and Bütschli, after an intensive study of their preparations, did I become convinced that these phenomena are closely connected with the fission of nuclei in the epithelial cells and as regards their existence are in agreement with the changes observed by the authors mentioned during the division of nuclei in animal and vegetable cells». From the fact, however, that Mayzel declares that «during several years he had many times seen...» nothing can result as regards the priority of discovery if it were not known that similar formations had previously been observed by Strasburger and Bütschli. In the history of discovery, it is essential to give the dates of publication; thus in 1875 Bütschli, Strasburger and Mayzel discovered karyokinesis almost simultaneously. Waldeyer reported this publication of Mayzel in the Virchow-Hirsch Jahresbericht for 1875, p. 35, as follows: «Mayzel beschreibt aus dem sich regenerierenden Epithel von Froschhornhaüten ähnliche Bilder von Kernen mit Streifen und Körnerplatten, wie Bütschli u. a.» (Mayzel, like Bütschli and others, describes similar pictures of nuclei with streaks and granular lamellae originating in the regenerating epithélium of the

cornea of a frog.») Waldeyer therefore did not write as stated by Kurkiewicz and Woźniewski. Certainly the contribution of Mayzel was very great, and like Strasburger and Bütschli, Mayzel also should always be cited for this first research as well as for his later work. The textbook of histology by Szymonowicz, which was published in many editions in several languages, is chiefly responsible for the neglect of Mayzel. In the Polish edition of 1924 on p. 27, Szymonowicz mentions the fifteen research-workers who contributed most to the elucidation of karyokinesis, but does not give Mayzel's name at all. Woźniewski (p. 159) also accuses Hoyer, who does not write of Mayzel's discovery in his textbook of histology — an unfounded accusation, since Hoyer's Histology appeared in 1862, thirteen years before the discovery of karyokinesis.

SÉANCE DU 31 MAI 1951
EXTRAIT DU PROCÈS-VERBAL.

Présidence de M. J. Olbrycht

Les propriétés pharmacologiques du disulfure du tétra-éthyl-thiurame (de «l'Antabuse») et de certains de ses derivés.

Communication de M. A. Czyżyk.

D'abord nous avons confirmé les resulats de l'investigateur danois V. Larsen, obtenus des experimentations faites avec les animaux. Nous avons constaté, que le disulfure du tétra-éthyl-thiurame augmente la toxicité de l'alcool éthylique pour les animaux du laboratoire, de même qu'après avoir appliqué au lapin ce spécifique et après une application suivante de l'alcool éthylique, infus avons obtenus dans le sang le niveau d'acétaldeéyde 5—10 fois superieur qu'après l'application de l'alcool éthylique tout seul.

Nous avons fait aussi des investigations, relatives au métabolisme gazeux des lapins. Les investigations démontrent clairement, que le procès normal de l'oxydation d'alcool éthylique dans l'organisme subit un enraiement sous influence du disulfure du tétra-éthyl-thiurame.

Nous avons constaté aussi, qu'après une plus longue application du disulfure du tétra-éthyl-thiurame chez les lapins se produit un abaissement successif du métabolisme gazeux. Par contre, nous n'avons pas constaté, que le disulfure du tétra-éthyl-thiurame au contact direct avec le tissu isolé ait eu une influence quelconque sur sa respiration.

De même nous n'avons pas trouvé, que le foie du rat, sous l'influence du disulflure du tétra-éthyl-thiurame, ait produit plus d'acétaldéhyde que normalement.

Parmi les derivés de «l'Antabuse» le disulfure du tétra-méthyl-thiurame produit sur les animaux du laboratoire la même action pharmacologique que le disulfure du tétra-éthyl-thiurame. Pourtant il est six fois plus toxique que lui. En employant une dose six fois plus petite on ne constate pas d'action pharmacologique decrite ci-dessus.

Le disulfure du dipipéridine-thiurame ne démontre aucune action pharmacologique semblable.

(L'Institut de Pharmacologie de l'Académie de Médecine à Cracovie: Directeur: Prof. Dr J. V. Supniewski).

L'influence de la chlorhydrate d. 2 mrthyl-4-amino-1-naphtole (vitamine K_2) sur les champignons et les bactéries.

Communication de M. S. Kowalski.

L'auteur a examiné l'influence de la vitamine K_5 sur les microorganismes suivants: *Trichophyton violaceum*, *Trichophyton niveum*, *Trichophyton gypseum*, *Trichophyton lacticolor*, *Achorion Schonleini*, *Aspergillus niger*, *Penicillium notatum* NRRL 1243 R 21, *Monilia*, *Torula utilis*, *Saccharomyces cerevisiae*, *Staphylococcus aureus*-Oxford, *Bac. subtilis* et *Bact. coli*.

Pour remarquer l'action de la vitamine K_5 sur l'accroissement des champignons, l'auteur les a 1) cultivé sur un milieu solide, contenant la vitamine K_5 dans de diverses concentrations, 2) placé durant une demi-heure dans des solutions de la vitamine K_5 de diverses concentrations. Les concentrations tuantes résultant de la I-ère méthode sont: pour les dermatophytes les plus sensitifs de 0·05 mg/ml (*Trichophyton violaceum* et *Trichophyton gypseum*) jusqu'à 0·2 mg/ml pour les plus résistants *(Trichophyton lacticolor)*, pour les autres champignons deo, 15 mg/ml, pour les moisissures, jusqu'à 0·6 mg/ml pour les levures. Les concentrations moins fortes que les tuantes prolongent l'incubation et diminuent l'accroissement. Les concentrations tuantes résultant de la II-ème méthode sont: 0·5—1·0 mg/ml pour les dermatophytes et 0·1—10·0 mg/ml pour les autres champignons, parmi lesquels les moisissures étaient les plus résistants.

L'absorbtion de l'oxygène par les champignons mesurée avec l'appareil de Warburg s'arrête entièrement dépendamment de leur genre dans les concentrations de 0·77 mg/ml pour *Trichophyton gypseum* jusqu'à 3·9 mg/ml pour *Penicillium notatum*. Dans les concentrations moins fortes (jusqu'à 0·3 mg/ml) a lieu au début une double ou triple stimulation de l'absorbtion de l'oxygène, qui diminue ensuite progressivement et approche de la norme après 120 minutes.

Les concentrations deviennent tuantes dans un milieu liquide, si elles possèdent pour *Staphylococcus aureus* 20 γ/ml, pour *Bac. subtilis* 30 γ/ml et pour *Bact. coli* 500 γ/ml.

(L'Institut de Pharmacologie de l'Académie de Médecine à Cracovie (Pologne). Directeur: Professeur J. Supniewski).

SÉANCE DU 18 JUIN 1951
EXTRAIT DU PROCÈS-VERBAL.

Présidence de M. J. OLBRYCHT.

Intravenous alimentation. I. Patterns of intravenous glucose transformation.

Communication de M. M. WIERZUCHOWSKI.

The following experiments have been made in order to find out a quick method of abundant feeding with glucose which would supply enough material to keep the organism in good condition for a certain time. In the course of intravenous feeding with glucose at a constant rate during 6 hours, the following patterns of utilization could be distinguished in 111 experiments performed on 26 normal, resting, adult bitches, maintained on a constant mixed diet.

a) When the energy content of the glucose utilized does not markedly exceed the basal energy requirement (up to 10 g per sq. m. per hour in long and up to 20 g in short experiments) a maintenance pattern appears, in which after a period of equilibration, all the values of utilization are set on a steady low level. No or almost no glucose appears in the urine. This condition may be maintained over weeks without any damage to the tissues and may be used with advantage for intravenous feeding.

b) As soon, however, as the maintenance rate of intravenous supply is exceeded (20 to 120 g per sq. m. per hour) metabolic response assumes a triphasic course consisting successively in 1) a period of rapidly increasing utilization (1-st hour), 2) the peak of utilization (2-nd and/or 3-rd hour) and 3) its progressive decrease (3-rd or 4-th to 6-th hour and later). These phases affect both the non-oxidative and the oxidative part of glucose transformation. Above 700 mg per 100 cc of blood sugar over pre-injection level (i. e., over 120 g of glucose supply per sg. m. per hour), the average maximal utilization rate of 82 g per sq. m. per hour, +4·8, is at-

tained during the 2-nd to 3-rd hour of infusion and may be reproduced over 1 year, being identical with maximum resting tolerance. As well other constants signifying the maximum capacity to perform metabolic work are obtained the highest oxidative power attaing the value of about 17 g per sq. m. per hour, a glycogen-forming power of about 64 g, and a fat-forming efficiency of about 1 g. The third period of decreasing utilization is obtained also with low rates of supply which are far either from arousing the maximum utilization or from gratifying the ultimate glycogen storage capacity of the tissues.

When intravenous feeding by means of glucose is intended, it is not expedient to supply glucose at such a rate (much higher than 120 g per sq. m. ou) as to overpass the blood glucose concentration of 800 mg per 100 cc, because the excess is not metabolized but only overcharges the molecular concentration in the internal medium. Of such a dosage during 6 hours so much glucose is retained as to cover the basal needs approximately during two days. The temperature of the glucose solution supplied does not play any marked role in the utilization between + 10° and 38°C.

(Department of Physiology in the Academy of Medicine, Łódź).

Intravenous alimentation. II. The fate of glucose under the influence of the degree of glycemia and of the time factor.

Communication de M. M. Wierzuchowski.

The influence exerted by a six hours'intravenous supply of glucose on various phenomena connected with glucose utilization was further studied in adult resting normal female dogs as a function of blood glucose concentration in successive time intervals.

In accordance with our former work the utilization of glucose versus the increment of its concentration in the blood above the fasting level increases hyperbolically until the critical level of about 700 mg per 100 cc is attained. Then between 700 and about 2000 mg per 100 cc the utilization assumes a steady asymptotic value. This course of events, found in the intact organism [1], seems to have a general biological meaning because it appears regularly

[1] Wierzuchowski M. Pamiętnik XIV Zjazdu Lekarzy i Przyrodników Polskich w Poznaniu, 11—5 września 1933, 2, 378; Fiszel H. i Wierzuchowski M. Pamiętnik itd., 1, 350; Sekuracki F. i Wierzuchowski M. Pamiętnik itd., 1, 351; Wierzuchowski M. Pamiętnik itd., 1, 352.

whenever glucose transformation is studied under the influence of its rising mass in the extracellular medium (other authors: extrahepatic tissues, tissue slices). This is a proof for the mass action law ruling the utilization of one of the fundamental foodstuffs of living matter.

When analysed in the course of successive hours for each hour separately, assimilation versus blood glucose concentration, shows the highest curves during the first three infusion hours. In the following hours a family of similar curves appears which, however, according to the super-maintenance pattern of utilization, display progressive decay in all sections. But the critical blood glucose value at which the steady level is reached does not change during all these hours of glucose feeding.

The following additional data help to elucidate the degree of validity of the above observations. In spite of the fact that the blood was undergoing slow progressive dilution with the increase of glycemia, the body weight increased only insignificantly. The kidney function, as estimated by the glucose elimination rate, the diuresis and renal glucose clearance remain efficient up to about 2000 mg of blood glucose per 100 cc with only a slight decrease of clearance in connection with a slight fall in blood pressure. This signifies that the kidney function remains undisturbed far beyond the levels of glycemia at which first the maximal utilization rate (= the asymptotic part of the curve) is disclosed. Body temperature, having a very similar course in various hours, seems to all only a little to the interpretation of the transformation phenomena.

The main point of this investigation was to find out the reason for the decrease of utilization after the 3-rd hour of glucose supply. The reason could not be given precisely, but the interpretation may consider the sudden damage of the islets by the hyperglycemia and the modification in the enzyme systems, initiating metabolic glucose transformation.

Thus the mass action of blood glucose must be supplemented by the temporal factor expressing the changing dynamics of glucose utilization in the course of its continuous supply. In such a way the later the hour of infusion, the smaller is the glucose infusion rate required to give the same blood glucose concentration.

(Department of Physiology in the Academy of Medicine, Łódź).

Intravenous alimentation. III. Lactate formation at various intensities of glucose metabolism (with some remarks on the source of the specific dynamic action).

Communication de M. M. Wierzuchowski
and T. Chmielewski.

When blood glucose is systematically raised by means of continuous intravenous infusion up to higher and higher levels in a normal intact dog, the lactate in the blood and its content in the urine increase progressively until the blood glucose attains a value which exceeds by 800 to 1300 mg per 100 cc the pre-infusion level in various individuals and in various hours of glucose supply. Then the lactate curves stop rising during the further development of glycemia. To reach this stage it is necessary to introduce at least about 150 g of glucose per sq. m. per hour.

When this happens with the lactate, glucose oxidation and the synthesis of fat from glucose practically level off at 350 mg of blood glucose per 100 cc (above pre-infusion value), whereas glycogen formation and the total utilization comme to a steady level approximately at 600 mg per 100 cc rise. Therefore in the section between 350 and 600 mg of blood glucose a large increment of lactate concentrations, of glucogen storage and of total utilization is formed practically without any significant increase of glucose combustion.

Thus a separation of the metabolic pathways can be effected in an intact animal by the application of various levels of glycemia, because enzymatic systems providing oxidation of glucose come to a functional saturation at a lower blood glucose concentration than glycolizing arrangements, which continue to augment their action without increase of glucose oxidation. Therefore lactate formation in the intact body does not seem to have its origin in the oxidative pathway of glucose transformation.

The present experiments substantiate the conclusion that the increment of lactate concentration in the blood and of its excretion in the urine may be used as a criterion of the integrated glucose utilization by the intact body. When blood and urine lactate level off with the increasing glycemia it proves that the extreme limit of utilization has been attained. As a matter of fact lactate formation seems to withstand higher blood glucose concentrations than any other pathway and is therefore the last to come to a steady maximal value under increasing hyperglycemia.

As the fate of glucose at any point of the glycemia spectrum (before reaching the asymptotic value) is different from that at any other point and, on the contrary, the specific dynamic action (expressed as a percentage of the heat content of the glucose utilized) is at each blood glucose level much similar and proportional to the total glucose quantity metabolized, it seems not to originate from any singular final metabolic way of utilization but from some section of the transformation of each glucose molecule common to all metabolic paths. Thus specific dynamic action would be the cost of the admission of glucose molecules into the metabolic pool.

(Department of Physiology in the Academy of Medicine, Łódź).

SÉANCE DU 24 SEPTEMBRE 1951
EXTRAIT DU PROCÈS-VERBAL.

Présidence de M. J. Olbrycht.

Les propriétes des dérivés de la chloromycetine. I. L'action bactériostatique de la bromomycetine.

Communication MM. J. Supniewskih, J. Krupińska et W. Dymek.

Nous avons obtenu la bromomycetine

$$p\text{-}NO_2C_6H_4CH(OH)CH(NHOCCHBr)CH_2OH$$

par la condensation de treo-para-nitrophenyl-2-amino-2-3-propandiol avèc l'éther méthylique de l'acide dibromacétique. La bromomycetine est une substance cristalline, amère, de p. de f. de 152—4 faiblement soluble dans l'eau. Cette substance n'exerce aucune action nocive sur la croissance des champignons parasitiques (Trichophyton violaceum. Tr. niveum, Tr. gipseum, Achorion Schoenleini, Torula utilis, Saccaromyces cerevisiae).

Les concentrations de la bromomycetine recémique et de la chloromycétine recémique arrêtant la croissance des microorganismes dans les divers milieux sont comparées ci-dessous.

		Chloromycetine γ/ml		Bromomycetine γ/ml	
		Arrêt partiel de la croissance	Arrêt complet de la croissance	Arrêt partiel de la croissance	Arrêt complet de la croissance
1	Staphylecoccus albus	20	100	20	50
2	Staphylecoccus aureus	10	50	6	10
3	Streptococcus faecalis	10	20	10	20
4	Streptecoccus pyogenes	2	4	10	20

		Chloromycetine γ/ml		Bromomycetine γ/ml	
		Arrêt partiel de la croissance	Arrêt complet de la croissance	Arrêt partiel de la croissance	Arrêt complet de la croissance
5	Sarcina	1	10	0·1	0·5
6	Neisseria gonorrhoeae	4	20	4	10
7	Pseudomonas aeruginosa	20	400	300	500
8	Proteus vulgaris	20	300	50	500
9	Corynebacterium diphtheriae	5	10	20	50
10	Mycobacterium phlei	4	6	4	6
11	Bacillus anthracis	6	10	20	50
12	Bacillus subtilis	0·5	10	10	20
13	Klebsiella pneumoniae	10	100	10	200
14	Klebsiella rhinosclerom.	10	100	20	400
15	Klebsiella ozaenae	2	6	10	20
16	Aerobacter aerogenes	2	6	10	20
17	Escherichia coli	5	20	2	6
18	Eberthella typhosa	10	50	2	10
19	Salmonella schottmuelleri	10	50	6	20
20	Shigella dysenteriae	4	10	6	10
21	Shigella paradysenteriae	5	10	1	4
22	Shigella sonnei	4	6	2	6

Action bacteriostatique de la chloromycetine et de la bromomycetine

		Chloromycetire racemique concentrations γ/ml		Bromomycetine racemique concentrations γ/ml	
		Arrêt partiel de la croissance	Arrêt complet de la croissance	Arrêt partiel de la croissance	Arrêt complet de la croissance
23	Vibrio comma	6	10	1	2
24	Brucella abortus	0·5	2	4	5
25	Haemophilus pertussis	0·5	6	0·5	2
26	Clostridium tetani	0·5	4	0·5	1
27	Clostridium septicum	4	5	2	10
28	Clostridium perfringens	4	5	4	5
29	Clostridium botulinum	4	5	1	5
30	Leptospira icterohaemorrhagica	20	50	20	50
31	Erysipelothrix rhusiopathiae	6	10	6	20
32	Streptococcus pneumoniae	1	10	5	50
33	Mycobacterium tuberculosis var. hominis	50	200	50	200

(Institut de Pharmacologie de l'Académie Médicale de Cracovie. Dorecteur: Professeur Supniewski).

Les propriétés des dérivés de la chloromycetine. II. L'action bacteriostatique du treo-para-bromphenyl-3-dichloracetamide/-1-3-propandiol.

Communication de MM. J. Supniewski, W. Dymek et J. Krupińska.

La treo-bromphenyl-2-dichloracetamide-1-3-propandiol

$$p\text{-}BrC_6H_4CH(OH)CH(NHOCCHCl_2)CH_2OH$$

est un derivé de la chloromycetine que nous avons obtenu par la synthèse chimique. C'est une substance cristalline, amère, peu soluble dans l'eau de p. de f. de 133—5°.

Elle n'exerce presque aucune action sur la croissance des champignons pathogènes et des l'evures. Sur le tableau ci-dessous nous avons comparé les concentrations de cette substance et de la chloromycetine racemique qui arrêtent la croissance des microorganismes pathogenes dans les milieux artificiels.

L'action bacteriostatique de la chloromycetine racemique et du treo-para-bromphenyl-2-bichloracetamide-1-3-propandiol (CB)

		Concentrations γ/ml			
		Arrêt partiel de la croissance		Arrêt complet de la craissance	
		CB	chloromycetine	CB	chloromycetine
1	Staphylococcus albus	50	20	100	100
2	Staphylococcus aureus	10	10	50	50
3	Streptococcus foecalis	4	10	100	20
4	Streptococcus pyegenes	6	2	100	4
5	Sarcina	1	1	10	10
6	Neisseria gonorrhoeae	10	4	20	20
7	Pseudomonas aeruginosa	400	20	500	400
8	Proteus vulgaris	100	20	300	300
9	Corynebacterium diphtheriae	20	5	50	10
10	Mycobacterium phlei	20	4	50	6
11	Bacillus anthracis	20	6	300	10
12	Bacillus subtilis	50	0·5	100	10
13	Klebsiella pneumoniae	20	10	100	100

		concentrations γ/ml			
		Arrêt partiel de la croissance		Arrêt complet de la croissance	
		CB	chloromycetine	CB	chloromycetine
14	Klebsiella rhinoscleromatis	10	10	500	100
15	Klebsiella ozaenae	20	2	100	6
16	Aerobacter aerogenes	6	2	20	6
17	Escherichia coli	20	5	50	20
18	Eberthella typhosa	10	10	50	50
19	Salmonella schottmuelleri	20	10	50	50
20	Shigella dysenteriae	20	4	50	10
21	Shigella paradysenteriae	1	5	10	10
22	Shigella sonnei	20	4	50	6
23	Vibrio comma	4	6	10	10
24	Brucella abortus	0·1	0·5	1	2
25	Haemophilus pertussis	1	0·5	10	6
26	Clostridium tetani	2	0·5	5	4
27	Clostridium septicum	2	4	5	5
28	Clostridium perfringens	10	4	300	5
29	Clostridium botulinum	1	4	4	5
30	Leptospira icterohaemorrhagica	50	20	100	50
31	Erysipelothrix rhusiopathiae	50	6	200	10
32	Streptoceccus pneumoniae	50	1	200	10
33	Mycobacterium tuberculosis var. hominis	100	50	200	200
34	Mycobacterium tuberculosis var. bovis BCG				

(Institut de Pharmacologie de l'Académie de Médecine de Cracovie. Directeur: Professeur Supniewski).



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